

Translation

PATENT COOPERATION TREATY

PCT/EP2003/011954



PCT

INTERNATIONAL PRELIMINARY EXAMINATION REPORT

(PCT Article 36 and Rule 70)

Applicant's or agent's file reference S2820 GC/sta	FOR FURTHER ACTION See Notification of Transmittal of International Preliminary Examination Report (Form PCT/IPEA/416)	
International application No. PCT/EP2003/011954	International filing date (day/month/year) 28 October 2003 (28.10.2003)	Priority date (day/month/year) 27 November 2002 (27.11.2002)
International Patent Classification (IPC) or national classification and IPC H03F 3/217		
Applicant INFINEON TECHNOLOGIES AG		

1. This international preliminary examination report has been prepared by this International Preliminary Examining Authority and is transmitted to the applicant according to Article 36.

2. This REPORT consists of a total of 4 sheets, including this cover sheet.

☒ This report is also accompanied by ANNEXES, i.e., sheets of the description, claims and/or drawings which have been amended and are the basis for this report and/or sheets containing rectifications made before this Authority (see Rule 70.16 and Section 607 of the Administrative Instructions under the PCT).

These annexes consist of a total of 5 sheets.

3. This report contains indications relating to the following items:

- I ☒ Basis of the report
- II ☐ Priority
- III ☐ Non-establishment of opinion with regard to novelty, inventive step and industrial applicability
- IV ☐ Lack of unity of invention
- V ☒ Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement
- VI ☐ Certain documents cited
- VII ☐ Certain defects in the international application
- VIII ☐ Certain observations on the international application

Date of submission of the demand 25 June 2004 (25.06.2004)	Date of completion of this report 22 November 2004 (22.11.2004)
Name and mailing address of the IPEA/EP	Authorized officer
Facsimile No.	Telephone No.

INTERNATIONAL PRELIMINARY EXAMINATION REPORT

International application No.

PCT/EP2003/011954

I. Basis of the report

1. This report has been drawn on the basis of *(Replacement sheets which have been furnished to the receiving Office in response to an invitation under Article 14 are referred to in this report as "originally filed" and are not annexed to the report since they do not contain amendments.)*:

- ☐ the international application as originally filed.
- ☒ the description, pages 1-12, as originally filed,
 pages _____, filed with the demand,
 pages _____, filed with the letter of _____,
 pages _____, filed with the letter of _____.
- ☒ the claims, Nos. _____, as originally filed,
 Nos. _____, as amended under Article 19,
 Nos. _____, filed with the demand,
 Nos. 1-15, filed with the letter of 05 November 2004 (05.11.2004),
 Nos. _____, filed with the letter of _____.
- ☒ the drawings, sheets/fig 1/2-2/2, as originally filed,
 sheets/fig _____, filed with the demand,
 sheets/fig _____, filed with the letter of _____,
 sheets/fig _____, filed with the letter of _____.

2. The amendments have resulted in the cancellation of:

- ☐ the description, pages _____
- ☐ the claims, Nos. _____
- ☐ the drawings, sheets/fig _____

3. ☐ This report has been established as if (some of) the amendments had not been made, since they have been considered to go beyond the disclosure as filed, as indicated in the Supplemental Box (Rule 70.2(c)).

4. Additional observations, if necessary:

INTERNATIONAL PRELIMINARY EXAMINATION REPORT

International application No.
PCT/EP 03/11954

I. Basis of the report

1. This report has been drawn on the basis of *(Replacement sheets which have been furnished to the receiving Office in response to an invitation under Article 14 are referred to in this report as "originally filed" and are not annexed to the report since they do not contain amendments.)*:

1. Reference is made to the following documents:

- D1: US-A-6 124 757 (NEWHEY CHRISTOPHER) 26 September 2000 (2000-09-26)
- D2: US-B-6 278 301 (JONES III ROY CLIFTON ET AL) 21 August 2001 (2001-08-21)
- D3: TAN M T ET AL: "A novel self-error correction pulse width modulator for a class D amplifier for hearing instruments" CIRCUITS AND SYSTEMS, 1998. ISCAS '98. PROCEEDINGS OF THE 1998 IEEE INTERNATIONAL SYMPOSIUM ON MONTEREY, CA, USA 31 MAY-3 JUNE 1998, NEW YORK, NY, USA, IEEE, US, 31 May 1998 (1998-05-31), pages 261-264, XP010289656 ISBN: 0-7803-4455-3.

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V. Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement

1. Statement

Novelty (N)	Claims	1-15	YES
	Claims		NO
Inventive step (IS)	Claims	1-15	YES
	Claims		NO
Industrial applicability (IA)	Claims	1-15	YES
	Claims		NO

2. Citations and explanations

2. The present application meets the requirements of PCT Article 33(2) and (3):

Document D1 (US-A-6 124 757) discloses a class-D amplifier with a frequency-modulated PWM clock frequency, for the compensation of errors caused by the supply voltage; although in document D2 (US-B-6 278 301) the clock frequency is modulated this is not done so as to correct signal distortions but to spread switching noise (spread spectrum modulation); in document D3 (TAN M T ET AL) the triangle reference signal is error-compensated. None of documents D1 to D3 discloses the claimed error correction using a variable system clock pulse based on amplifier deflection.

3. The application meets the requirements of PCT Article 33(4) because the subject matter of the claims is industrially applicable.